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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,501	07/22/2003	Wendell Rhine	46775 (57626)	8091
21874	7590	10/13/2004		
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205				
EXAMINER HAMPTON HIGHTOWER, PATRICIA				
ART UNIT		PAPER NUMBER		
1711				
DATE MAILED: 10/13/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,501

Applicant(s)

RHINE ET AL.

Examiner

Patricia Hightower

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-111 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-22 and 55-76 is/are rejected.
- 7) ☒ Claim(s) 4, 23-57, 59, 60 and 77-111 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/30/04 & 7/22/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Information Disclosure Statement

The information disclosure statements filed July 22, 2003 and January 30, 2004 have been considered and have been made of record.

Improper Multiple Dependent Claims

Claims 28-38, 56-57, 59-60 and 80 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only and/or cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 28-38, 56-57, 59-60 and 89 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-22 and 55-76 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (USP 6,399,669).

Suzuki et al (USP 6,399,669) discloses a porous material made of a dry gel of a polyimide resin having an apparent density of 800 kg/m³ or less and a mean pore size of 1 µm or less, the porous material exhibits high heat resistance and is low in density and mean pore size; said porous polyimide material is used to produce not only a heat insulator with a low thermal conductivity and high heat insulation but also an insulating material having a low dielectric constant and exhibiting excellent dielectric characteristic

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at high frequencies, it can also provide a semiconductor circuit including the insulating material. See abstract; col. 2, lines 5-67; col. 3, lines 3-7, 10-20, 25-32, 33-40, 41-68; col. 4, lines 29, 30-54, 58-67; col. 5, lines 1-21, 22-67; col. 6, lines 1-67; col. 7, lines 1-26, 28-31, 32-67; col. 8, lines 1-67; cols. 9-1; Examples -6 and claims 1-6.

At col. 14, the patentee teaches in example 5, the polyimide resin sheet was immersed in a methanol/water mixed solvent and heated at 50°C for 1 day which gave a polyimide swollen body. The swollen body was further heat treated for 7 days to make a gel. The polyimide wet gel thus obtained was subjected to supercritical drying using carbon dioxide which gave a polyimide dry gel. The dry gel thus produced had an apparent density of about 500 kg/m³, a mean pore size of about 700nm and a BET specific surface area pf about 450 m²/g. Next, the polyimide dry gel was carbonized at 800°C in a nitrogen atmosphere to produce a porous carbon material.

The patentee teaches at col. 6, lines 50 – col. 7, lines 31, that the reactants the dianhydrides and diamines used to prepare the polyamic acid and the resulting polyimide are not limited to the examples disclosed and any compounds may be used in if their combination can form a resin having a polyimide structure. See especially col. 7, lines 28-31.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are cited to show the state of the art of polyamic acids having three-dimensional network molecular structure, polyimide/metal laminate, polyamide membranes and polyimide film: Inoue, Barringer, Sawasaki, Nishinaka, Makino and Nagata.

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Claims 4,23-27,39-54,77-79, 81-111 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia Hightower whose telephone number is (571) 272-1073. The examiner can normally be reached on M-F from 9:30 A.M. - 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patricia H. Hightower
Primary Examiner
Art Unit 1711

P. Hightower:ph
September 30, 2004